

## Lightweight Design of an HTS Coil for the VASIMR Experiment, Phase I

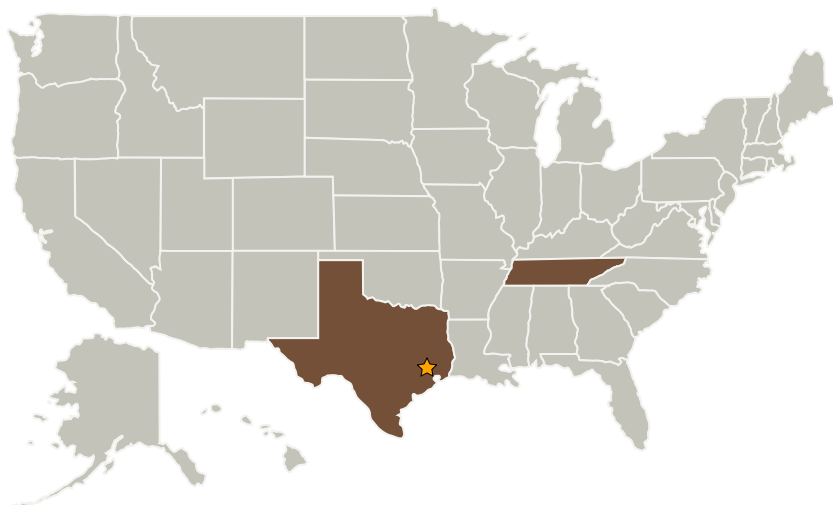
Completed Technology Project (2004 - 2004)



## Project Introduction

Tai-Yang Research of Delaware proposes to design and fabricate an HTS double-pancake coil in support of the VASIMR experiment. The proposed HTS coil will implement novel CVD diamond technology for a lighter system weight with greater thermal uniformity and stability. CVD diamond technology in combination with HTS magnets offer significant advantages over traditional technology in terms of system reliability.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Tai-Yang Research Corporation	Supporting Organization	Industry	Knoxville, Tennessee

## Primary U.S. Work Locations

Tennessee	Texas
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## Organizational Responsibility

## Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

## Lead Center / Facility:

Johnson Space Center (JSC)

## Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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## Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

**Principal Investigator:**

Gregory T Markham

## Technology Areas

**Primary:**

- TX14 Thermal Management Systems
  - └ TX14.2 Thermal Control Components and Systems
    - └ TX14.2.8 Measurement and Control